

INITIAL STATEMENT OF REASONS  
TITLE 17, CALIFORNIA CODE OF REGULATIONS

PROPOSED SECTION 96100  
LOCAL HEALTH OFFICER REPORT OF KNOWN OR SUSPECTED  
PESTICIDE-RELATED ILLNESS  
DIVISION 4. OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT  
CHAPTER 2. PESTICIDE PROGRAM  
SUBCHAPTER 1. PESTICIDE-RELATED ILLNESS AND INJURY  
ARTICLE 1. REPORTING

Legal Authority

Pursuant to California Health and Safety Code, section 105200, the Office of Environmental Health Hazard Assessment (OEHHA) has the authority to prescribe the form used by the local health officer (LHO) to report a known or suspected pesticide-related illness. This provision also requires physicians to report known or suspected pesticide poisonings to the LHO by telephone within 24 hours. The health officer then notifies the county agricultural commissioner (CAC) of the case and submits a report within seven days to OEHHA, the Department of Pesticide Regulation (DPR), and for work-related cases, to the Department of Industrial Relations (DIR).

Purpose of Regulation

The proposed regulatory action will define the information to be collected by the LHO and specify the procedural means for reporting the data to the state. With defined data fields, the LHO can more easily provide standardized and coherent guidance to the reporting physician on the information that should be obtained from patients. Collection of standardized data variables will allow for more efficient data exchange among the local and state agencies involved, thereby positively impacting public health.

Since the 1970's, a known or suspected pesticide illness or injury has been a reportable condition in California. To verify that pesticide exposure has caused an illness or injury, various types of data must be collected. These data include details on when and where the pesticide exposure occurred, what the person was doing at the time of exposure, what pesticides or active ingredients were involved, what signs and symptoms were experienced, what diagnostic tests were done, what treatment the person received, and how the person can be contacted for follow-up investigation. This information is used for immediate patient health care decisions, illness surveillance, and improvement of training programs for health care providers on the recognition, treatment, and reporting of pesticide illness. Furthermore, it is used to document pesticide use violations and to determine the effectiveness of the pesticide regulatory program. By documenting the numbers and types of illnesses caused by specific pesticides and specific uses, OEHHA and its partners can develop ways to reduce or prevent exposures, thereby reducing pesticide-related illness and protecting public health.

Physicians and local health officers currently use the OEHHA form entitled, "Pesticide Illness Report (PIR)" [OEH-PETS 004(Rev. 6/01) Appendix A] to report pesticide illnesses to state agencies. However, regulations prescribing the content of the form and requiring its use have

never before been promulgated and therefore the use of the PIR form has been discretionary. Executive Order S-2-03 directed each state agency to assess and identify any guideline, criterion, bulletin, manual, instruction, order, or standard of general application that has not been adopted as a regulation in potential violation of California Government Code section 11340.5(a). Under this order, and pursuant to Title 1, California Code of Regulations, section 250, OEHHA determined that the current PIR form could be considered an underground regulation if the physicians and LHO's were required to use it. Therefore, in order to ensure continued compliance with state law and the Executive Order, OEHHA has initiated this rulemaking process to adopt standard data fields for the pesticide illness reporting form in regulation and make use of those data fields mandatory.

#### Evaluation of Information to Develop Minimum Data Variables for Effective Reporting

To develop the most effective pesticide illness reporting system within the parameters of the statutory authority, OEHHA collected and evaluated a number of informational resources available on the topic, including:

1. OEHHA's Current PIR form

OEHHA evaluated its existing PIR form with the goal of improving the accuracy, timeliness, and completeness of pesticide-related illness reporting. Specifically, OEHHA evaluated pesticide illness reports that were submitted by local health officers and other reporting sources during the years 1999 to 2002 for data completeness and trends in missing or incomplete data. OEHHA found that several data fields in the current PIR form were imprecise or ambiguous, resulting in incomplete or spurious data being reported to the state and the county agricultural commissioners. Furthermore, data fields on the form contain outdated personal and medical terminology, which should be updated to be consistent with national public health information standards.

2. Pesticide Illness Reporting Forms from Other States

Legislatively-mandated pesticide illness reporting is required in eleven other states. OEHHA examined the pesticide illness reporting regulations and forms from these other states. Upon evaluation, none of these forms was considered adequate to serve as a basis for this proposed regulation.

3. Confidential Morbidity Report (CMR)

The Confidential Morbidity Report (Form PM 110, version 8/05), developed and promulgated in regulation by the California Department of Health Services (DHS), is the form that health care providers currently use and are most familiar with for mandatory diseases and medical conditions reporting to the local health officer. In consultation with OEHHA, DHS updated the CMR to include "known or suspected pesticide-related illness or injury." This action was taken as of August 2005. To improve CMR reporting, DHS has been developing an electronic web-based disease reporting system for health care providers that is based on the CMR data variables. OEHHA has worked closely with DHS and with local health officials to include pesticide-related illness or injury reporting in this electronic reporting system. OEHHA has determined that specific data fields on the revised PIR form should be consistent with corresponding fields for both the paper and electronic CMR forms. Furthermore, the national trend towards electronic medical records requires the use of

standardized data variables so that data can be exchanged efficiently and effectively among state, local, and private health care partners. OEHHHA expects the conversion of the pesticide illness reporting system from paper-based to electronic format will be initiated in 2007 and will evolve into standard practice over time as medical informatics<sup>1</sup> advances. Therefore, we are proposing changes in the content of the paper form that will facilitate efficient and seamless conversion to an electronic form when it occurs.

4. Doctor's First Report of Occupational Injury or Illness

The DFR (Form 5021, Rev. 4, 1992) is completed by a physician after initial examination of a patient for occupational injury or illness (Appendix B). The physician sends copies of the report to the patient's insured employer or to the employer's workers' compensation insurance carrier for reimbursement of medical treatment. If the occupational illness or injury is pesticide-related, the physician also sends a copy of the report to DIR and notifies the local health officer of the pesticide-related illness or injury. DPR has reported that in a typical year, the majority of pesticide-related illness cases are identified through review of the DFRs. Only about 30% of the occupational pesticide illness cases that DPR investigates originate with the PIR form (DPR 2002b), indicating a need for substantial improvements in reporting and reporting compliance. Since the physician may notify the LHO of a pesticide illness via a completed DFR, OEHHHA reviewed the data fields on the DFR form to determine which would be appropriate to use on the PIR. The proposed PIR has several data variables in common with the DFR. This commonality will simplify and speed completion of the PIR by allowing the LHO to transfer applicable data from the DFR or attach it directly to the PIR.

5. Databases from NIOSH and DPR

OEHHHA examined the data variables used in pesticide illness surveillance databases developed by DPR and the National Institute for Occupational Safety and Health (NIOSH) (Appendix C). Since the early 1970's, DPR has collected statistics on acute pesticide-related illnesses or injuries under this program. Data are collected from PIR forms, as well as the DFR forms, field investigations, and other sources. OEHHHA compared the PIR form variables with those used in the PISP database for consistency and applicability (DPR 2002a).

We also considered the source, "Standardized Variables for State Surveillance of Pesticide-Related Illness and Injury" (NIOSH, 2002), which is a list of the variables used in the NIOSH Sentinel Event Notification System for Occupational Risk (SENSOR-Pesticides) Program. A goal of that program is to create a national occupational illness database that has consistent, standardized case definitions. Even though this system only applies to the occupational setting, this provides the only national list of standardized variables for pesticide illness or injury. We particularly scrutinized the NIOSH information for data fields related to the collection of pesticide exposure information.

Other Considerations in Defining Required Data Variable for PIR

A major consideration in revising the PIR form is the intended user. The law does not require physicians or other health care providers to complete the PIR; it only requires them to contact the LHO by telephone within 24 hours to report the case. The LHO must then complete and file the

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<sup>1</sup> "Informatics" is the collection, classification, storage, retrieval, and dissemination of recorded knowledge

PIR form with the state. Many local health departments encourage providers to complete the PIR form themselves since they are in the best position to collect pertinent health and pesticide exposure information from the patient in a timely manner. Therefore, the PIR offers physicians a convenient and standard method for reporting pesticide illness to the LHO that is consistent with good public health surveillance practice, that is integrated into the overall system of disease and illness reporting, and that will most effectively aid local agencies in attaining the public health objectives for pesticide illness control and prevention. We have attempted to revise and standardize the required data fields in the PIR to meet the patient examination and case note needs of the health care provider, while maintaining the case reporting requirements mandated for the local health officer.

After considering the sources described above, OEHHA revised the PIR form and provided a copy to DPR staff and the county LHOs for review and feedback, with emphasis on the proposed data fields. OEHHA received favorable comments and valuable suggestions from the county LHOs and DPR staff. Based upon those comments, we further revised the form to reflect those suggestions. The required information on pesticide-related illnesses or injuries to be collected by the LHO from health care providers is described in this proposed regulation.

#### REASONABLE ALTERNATIVES TO THE REGULATION AND THE AGENCY'S REASONS FOR REJECTING THOSE ALTERNATIVES

OEHHA considered establishing a required reporting form in regulation in lieu of listing the required data elements that must be collected. We rejected this alternative for several reasons. First, the current paper-based system will be converted to electronic reporting in the near future. We wanted to maintain flexibility in the physical appearance of the form, so that it could be easily adapted to different software systems and to individual county requirements. Second, since local health departments may encourage physicians to complete the pesticide illness reporting form, we did not want to restrict the actual form used by the physician. Either the CMR or DFR could be completed in lieu of the PIR, since both contain data elements common to the PIR form and are consistent with the requirements of the proposed regulation. This approach avoids having the physician complete two redundant forms, and preserves the original medical record. Consistent with the proposed regulation, the local health department can append this record to the PIR form and forward it to the state. Furthermore, the intent of the underlying law is to encourage physicians to report pesticide-related illnesses to their local health department in a timely manner so that the county agricultural commissioner and local health department can initiate an investigation of the incident, if appropriate, and prevent the occurrence of further illness or injury. Adopting a flexible approach will facilitate that objective.

During the process of developing this regulatory proposal, OEHHA received a suggestion to use the DFR as the pesticide illness reporting form. Although the DFR would serve as a means for the physician to report an occupational pesticide incident to the LHO, it has limitations in its use in lieu of the pesticide illness reporting form. The DFR is intended for occupational illness only. It does not identify community pesticide exposure episodes, childhood pesticide poisonings, or intentional poisonings. In addition, it does not contain critical data elements, such as the

reporting agency. For these reasons we rejected the use of the DFR in lieu of the pesticide illness reporting form for purposes of this regulatory proposal.

#### REASONABLE ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON BUSINESS

The proposed regulatory action will not adversely impact small business. The proposed regulation prescribes the required data to be collected by local health departments to report pesticide poisonings to the relevant state agencies. It does not impose any new requirement upon any business, including small business.

#### EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The proposed regulatory action will not have a significant adverse statewide economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. The proposed action does not impose any new requirements upon private persons or business. For convenience to the LHO, or anyone else, OEHHA will provide a form containing the required data reporting variables at its website. OEHHA will periodically notify the LHO of its availability for their use.

#### DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

There are no federal regulations that require mandatory reporting of known or suspected pesticide illness or that specify a particular form or define information to be collected for pesticide illness. However, the National Institute of Occupational Safety and Health (NIOSH) provides guidance to state entities participating in the Sentinel Event Notification Systems for Occupational Risk (SENSOR) program for the purpose of collecting occupational illness and injury data, including data on pesticide-related cases. NIOSH has developed a data dictionary for standardized variables, which allows for consistency in data collection, compilation, and exchange. Nevertheless, a pesticide illness reporting form is not federally mandated under this program. The proposed regulation does not conflict with any federal regulation.

#### Proposed Section 96100

The purpose of new Section 96100 is two-fold. First, the regulation defines the data elements that local health officers or their designees must collect from physicians to report known or suspected pesticide illnesses or injuries to the state. Second, the regulation identifies the technical means by which local health officers can report pesticide illnesses or injuries to the state. This new regulation is intended to provide local health departments with the minimum data requirements for reporting a pesticide-related illness or injury. The information should be used for immediate patient health care decisions, illness surveillance, and training programs for health care providers on the recognition and treatment of pesticide illness. By documenting the numbers and types of illnesses caused by specific pesticides and specific uses, OEHHA and its

partners can develop ways to reduce or prevent exposures, thereby reducing pesticide-related illness and protecting public health.

The specific purpose for each of the provisions of the new regulation is discussed below:

Subsection (a) specifies that the local health officer or their designee shall submit reports of pesticide illness or injury to specific state offices. Pursuant to California Health and Safety Code, Section 7, the health officer may authorize a deputy or other person, such as their county environmental health director or the California Poison Control System, to collect and submit pesticide illness reports to the state. (*“Sec 7. Whenever a power is granted to, or a duty is imposed upon, a public officer, the power may be exercised or the duty may be performed by a deputy of the officer or by a person authorized, pursuant to law, by the officer, unless this code expressly provides otherwise.”*)

Additionally, subsection (a) provides a list of required data elements to be collected from the health care provider by the local health officer or their designee and reported to the state agencies. The list includes information on patient demographics, patient health status, pesticide exposure, health care provider demographics, and reporting agency demographics.

Subsection (a)(1) specifies the patient demographic information to be collected for pesticide related illnesses or injuries. The required data fields are: patient first and last name, birth date, social security number, residence address, contact telephone number, gender, race and ethnicity. This information is consistent with the data required on the California Confidential Morbidity Report (Form PM 110) for other reportable diseases and conditions.

The collection of race and ethnicity data is necessary for determining trends in pesticide illness and injury reporting and identifying social inequities in medical care access and treatment. Greater than 90 percent of California agricultural workers are of Hispanic ethnicity (California-Mexico Health Initiative, 2005; Villarejo et al., 2000). They are disproportionately affected by pesticide exposure and illness, which is an important environmental justice issue that can be identified by the collection of race and ethnicity data. Collection of this information will enable local and state entities to characterize and address environmental exposure and health disparities among high risk populations.

Subsection (a)(2) specifies the patient health and medical information to be reported by the local health officer. The data elements include: dates of illness onset and initial examination, the health symptoms reported by the patient, the observations or signs noted by the health care provider upon interview or examination of the patient, laboratory or diagnostic tests conducted, treatment rendered, and medical diagnosis. These data fields are consistent with the patient health fields on the Confidential Morbidity Report (Form PM 110) and on the Doctor’s First Report of Occupational Injury or Illness (Form 5021, Rev. 4, 1992).

Subsection (a)(3) specifies the pesticide exposure information required to associate an illness or injury with a pesticide exposure. The data fields include: the date of pesticide exposure; the name of the pesticide or active ingredient; a description of the location where the exposure occurred, including the county of exposure; how the exposure occurred; whether the person was

exposed at work; whether others were exposed; and what the patient's activity was at the time of the exposure. Although details pertaining to a pesticide exposure incident are not always readily available, the quality of the follow-up field investigation is greatly improved when the local health officer is able to gather this information from the reporting health care provider. The lack of a specific diagnostic test or laboratory measurement to confirm pesticide exposure as the cause of an illness makes the evidence surrounding the exposure event even more important for proving a cause-effect relationship. County of exposure is critical because the local agricultural commissioner in the county of exposure is responsible for investigating the pesticide incident and determining if pesticide use violations occurred.

Subsection (a)(4) specifies the required health care provider information that must be submitted, which includes the first and last name of the health care provider, the name and address of the facility where the patient was examined or treated, the contact telephone number for the health care provider, and the name of the person who submitted the illness report to the local health officer, if different from the health care provider. To better understand the conditions and circumstances of the pesticide exposure event, the local health officer may need additional details from the health care provider, so contact information is critical to follow-up. Additionally, OEHHA uses the provider demographic data to focus its physician outreach and education efforts pertaining to the recognition and treatment of pesticide illness.

Subsection (a)(5) specifies the reporting agency information, which includes the agency name and address, and the agency contact and facsimile telephone numbers. In most cases, the reporting agency is the local health department in the county where the patient resides. However, if the patient was exposed to the pesticide(s) in a county other than his or her residence, then the health department in the county of exposure may be the reporting agency.

Subsection (b) states that the unavailability of any of the information in subsection (a) shall not prevent the health officer from reporting the pesticide illness or injury to the state. Although the information required in subsection (a) is necessary for determining a cause-effect relationship between a pesticide exposure and a subsequent illness, the information often is unavailable to the health care provider. The patient may not know when he or she was exposed to a pesticide, or even the name of the pesticide. Sometimes patients are exposed to a pesticide, but do not exhibit any health signs or symptoms indicating an actual illness. Nevertheless, it is critical that any information that is available at the time of the initial report be forwarded to the state as soon as possible so that an investigation into the incident can be initiated in a timely manner.

Subsection (c) specifies the technical means by which pesticide illness reports can be transmitted to the state. Acceptable methods for paper records are mail service with tracking and facsimile. Electronic record transfer, where available, also is acceptable and will be the preferred method when it becomes available statewide. As mentioned previously, the DHS is developing a statewide solution for electronic transfer of CMRs, which contains a provision for reporting known or suspected pesticide illnesses. Moreover, OEHHA has a pilot project with San Diego, Monterey and Fresno counties to develop and test the pesticide illness reporting functions of their web-based CMR system, which will then become available to other counties who have acquired the same software or who can interface with that system in a data standard manner.

Subsection (d) specifies that reporting of pesticide illnesses, whether via mail or electronic methods, shall be consistent with state and federal medical record transfer laws, including the Health Insurance Portability and Accountability Implementation Act (HIPAA) of 2001 (California Health and Safety Code sections 130300-130317) and 45 Code of Federal Regulations, parts 160, 162 and 164.



## REFERENCES

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Villarejo D, Lighthall D, Williams S et al. (2000). Suffering in silence: a report on the health of California's agricultural workers. California Institute for Rural Studies and the California Endowment. November 2000. 37 pp.

## Appendix A

### Pesticide Illness Report

Form OEH-PETS 004 (Rev 6/01)(PIR\_R99.doc)



## Appendix B

### Doctor's First Report of Occupational Injury or Illness

(Form 5021, Rev 4, 1992)

## Appendix C

National Institute of Occupational Safety and Health. “STANDARDIZED VARIABLES FOR STATE SURVEILLANCE OF PESTICIDE-RELATED ILLNESS AND INJURY.”

Pesticide Illness Surveillance Program (PISP) Database User Documentation/Dictionary.  
California Department of Pesticide Regulation